LSS[SM]
Legacy Site Services LLC

July 3, 2014

Mr. Sean Sheldrake
U.S. Environmental Protection Agency
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Suite 900, M/S ECL-110
Seattle, Washington 98101

Ms. Lori Cora
U.S. Environmental Protection Agency
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Seattle, Washington 98101

Subject: Dispute of EPA Letter dated June 6, 2014
Arkema Inc. Portland Facility
Administrative Order on Consent (AOC) for Removal Action
U.S. EPA Region 10 Docket No. CERCLA 10-2005-0191

Dear Mr. Sheldrake and Ms. Cora:

Legacy Site Services LLC ("LSS"), agent for Arkema Inc. ("Arkema"), invokes the dispute resolution process pursuant to section XVI, paragraph 49 of the Administrative Order on Consent for Removal Action ("AOC") entered into by Arkema and the U.S. Environmental Protection Agency ("EPA") with an effective date of June 27, 2005. LSS submitted to EPA a report entitled "Draft Sediment Sampling Work Plan" dated April 30, 2014 ("Work Plan") (Exhibit 1). LSS disputes statements made and positions taken by EPA both in EPA's June 6, 2014 letter ("June 6 EPA letter") (Exhibit 2) and in a follow-up conference call between EPA, its partners, and LSS on June 19, 2014 ("June 19 call").

LSS Dispute Position

LSS disputes the following statements made and positions taken in the June 6 EPA letter:

1. "*EPA anticipates significant revision and additional effort is needed on many elements of the Work Plan, such as quality assurance/quality control and health & safety, such that the sampling would not occur for several months and the data received after several more.*" LSS disputes this position because LSS will use the already approved engineering evaluation and cost analysis ("EE/CA") and/or the Lower Willamette Group ("LWG") Health and Safety Plan, Field Sampling Plan, and Quality Assurance Project Plan elements for the proposed sampling. These were previously approved by the EPA for the majority of the identical parameters, environmental media, and analytes addressed in the Work Plan; therefore, approval can be streamlined and should not be unreasonably withheld.

   One element of this Work Plan that is new to lower Willamette River ("LWR") investigations and, therefore, does not have a previous EPA-approved plan, is the

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proposed use of passive sampling devices to measure pore water concentrations. However, the proposed passive sampling device and material (polyethylene) will be prepared, deployed, and recovered in accordance with established EPA guidance (USEPA 2012, Exhibit 3). In addition, EPA used these same sampler types to monitor PCBs on the Palos Verdes shelf (USEPA 2012, Exhibit 3), and these samplers were successfully used for the Lower Duwamish Waterway (Gschwend et al. 2013, Exhibit 4). Subsequent research on the Palos Verdes shelf by EPA and Southern California Coastal Water Research Project has shown these same devices are effective for measuring pore water concentrations and diffusive flux of DDT and other organic chemicals (Fernandez et al. 2014, Exhibit 5; Greenberg et al. 2014, Exhibit 6). These samplers have even been recently proposed for the LWR river mile 11 pore water investigation just upstream of the Arkema site (SEE et al. 2014, Exhibit 7).

2. "*EPA believes sufficient data exists to inform alternatives development and remedy selection for the area adjacent to the Arkema site.*" LSS disputes this position for the following reasons: (i) Portland Harbor Remedial Investigation data are severely limited as to benthic toxicity and its apparent causes; (ii) there was demonstrable interference affecting PCB analysis and detection limits; (iii) thus far, EPA has failed to abide by our previous agreement that EE/CA data would be brought into the Portland Harbor FS; and (iv) much time has passed since the last sampling event and, therefore, the existing surface sediment and benthic toxicity data may not be representative of current site conditions.

   As to item (i), it appears that EPA is relying primarily on the Comprehensive Benthic Risk Approach from the Baseline Ecological Risk Assessment to identify benthic toxicity-driven remediation areas adjacent to the Arkema site. However, it is recognized and understood that the benthic toxicity model is a poor predictor for toxicity at the Arkema site (Integral 2012, Exhibit 8). Furthermore, Arkema site-specific sediment toxicity test data that demonstrate little or no toxicity for a portion of these same areas are not being considered (Integral 2012, Exhibit 8). In addition, there are known confounding factors (i.e., chloride in groundwater) in one part of the Arkema site which must be understood so that remedial decisions are not based on faulty assumptions (i.e., contaminated sediment-driven toxicity versus pore water chloride-driven toxicity) that could lead to unsuccessful remedial actions. The additional benthic toxicity tests were proposed to further evaluate benthic toxicity at the Arkema site, including evaluation of the effects of chloride as a confounding factor. The methods proposed are the standard methods utilized to reduce the influence of other commonly identified constituents that are more typically confounding factors: ammonia and sulfide.

   With respect to items (ii) and (iii), LSS has provided EPA with the EE/CA data in a format that could be used for the Portland Harbor FS. To date, LSS has not seen any information in the record that demonstrates that this information is being considered. Again, this information is extremely important to the consideration of the nature and extent of contaminants and remedial decisions at the site. For example, past FS analysis has included sediment samples with high non-detect PCB Aroclor values (high PCB

non-detects are a well-documented analytical measurement artifact of the interference of DDT on PCB Aroclor analyses). The EE/CA investigation included more than 34 new PCB Aroclor sediment sample analyses, with 20 of those samples having detection limits significantly below EPA's current lowest proposed remedial action level of 75 µg/L; however, none of those data appear to be used in ongoing FS remedial alternative analyses at the Arkema site.

Please see the attached Work Plan for additional information.

3. "*LSS may proceed to revise the Work Plan to include only the Section 3.2.1 work scope; however, EPA sees this work as a pre-design activity with no relevance to the FS schedule.*" LSS disputes this statement. The Section 3.2.1 work relates to the evaluation of subsurface nonaqueous-phase liquid ("NAPL") sheens and constituents of interest ("COIs"), and EPA's draft definition of Principal Threat Waste ("PTW"). The results of this NAPL work have a direct effect on the alternatives evaluation and remedy selection in the Portland Harbor Feasibility Study. Without direct resolution of EPA's PTW-driving NAPL assumption, treatment and disposal options and cost estimates could be grossly in error and could significantly alter the weighting and selection of the preferred alternative.

LSS disputes the following statements made and positions taken by EPA on the June 19 call:

1. EPA stated that no data collected outside of an EPA-approved work plan will be considered by EPA. LSS interprets this statement to mean that if LSS proceeds with its proposed sampling without EPA approval, the resulting data will not be used under any circumstance in the Portland Harbor process, even if all appropriate protocols, best industry practices, and prior EPA-approved procedures are followed. LSS disputes this arbitrary and capricious statement because it is contrary to the National Contingency Plan[1], and defeats the very purpose of developing sound technical alternatives and remedy selection based on the best available and most recent data. In addition, EPA has already used data that are not part of a Portland Harbor EPA-approved work plan, including the Corps of Engineers Post Office Bar sediment data obtained as part of a dredging project, data obtained by ARCO as part of its bank stabilization project, the City of Portland's independently conducted Downtown Reach investigation, additional sediment data independently obtained by the City of Portland in the vicinity of river mile 11, and sediment data collected by Arkema adjacent to its site between 1999 and 2003.

2. EPA stated that it will proceed with LSS on the NAPL scope but the data will not be on the Portland Harbor FS path, and that EPA will not make a schedule commitment. EPA acknowledged LSS's request for a last round of sampling in the agreement resolving LSS's January 24, 2014 dispute, memorialized by a letter dated March 31, 2014 (Exhibit 1, Appendix D). LSS is entitled to a good faith effort by EPA to satisfy this agreement. Given the major impact the NAPL data will have on alternatives evaluation and remedy

[1] 40 C.F.R. 300.430 (a)(ii)(C): "Site-specific data needs, the evaluation of alternatives, and the documentation of the selected remedy should reflect the scope and complexity of the site problems being addressed."

selection, definitively stating that the NAPL data will not be considered in the Portland Harbor FS process before LSS is given a chance to collect the data is not in the spirit of the terms of the March 31, 2014 agreement.

3. EPA stated that the EE/CA data will be placed in the Portland Harbor administrative record, but may not be included in the RI/FS GIS layers. LSS disputes this position because of the prior agreement between EPA and LSS that "[a]ll data generated for the EECA will be added to the RI/FS data set." To date, LSS has not seen any meaningful inclusion of that critical and more recent EE/CA data into the Portland Harbor RI/FS process.

While LSS appreciates EPA's views on the Portland Harbor schedule and EPA's suggestion that this work be done in a year or so from now, the sampling proposed in the Work Plan addresses data needs that are critical to the appropriate and defensible characterization of the sediment quality, porewater quality, and benthic toxicity causation for the area off the Arkema site as it relates to the Portland Harbor FS process. Given that the protocols in the Work Plan have been previously approved in other sampling efforts, the proposed Arkema sampling can be performed in a timely manner with little additional EPA effort. Therefore, the Work Plan should be approved in its entirety.

In addition, LSS is concerned that representations made by EPA at the February 25, 2014 meeting are not being honored. LSS understood from EPA that all Portland Harbor early actions are being rolled into the FS. We have not seen any indication that the other early actions are being incorporated into the Portland Harbor FS process and that those orders are being terminated. LSS is concerned that this will lead to selective addition of newer data rather than incorporation of all of the newer data. LSS is merely seeking fairness, and inclusiveness regarding newer data.

LSS looks forward to continuing to work with EPA to explore reasonable options to resolve our differences. Please contact me at (610) 594-4430 if you have any questions pertaining to this letter and/or you wish to set up a meeting.

Sincerely,

Legacy Site Services LLC

J. Todd Slater
Assistant Vice President

cc: (electronic) Tom Gainer, Oregon DEQ
Rick Kepler, Oregon Department of Fish and Wildlife

Rob Neely, NOAA Coastal Resources Coordination
Dr. Nancy Munn, NOAA Fisheries
Jeremy Buck, US Fish and Wildlife
Preston Sleeger, US Department of Interior
Brian Cunninghame, Confederated Tribes of the Warm Springs Reservation of Oregon
Rose Longoria, Confederated Tribes and Bands of the Yakama Nation
Pete Wakeland, Confederated Tribes of the Grand Ronde Community of Oregon
Tom Downey, Confederated Tribe of the Siletz Indians
Audie Huber, Confederated Tribes of the Umatilla Indian Reservation
Erin Madden, Nez Perce Tribe
Jennifer Peterson, DEQ
Matt McClincy, DEQ
Mike Poulsen, DEQ
Alex Cyril, DEQ
Cy Young, DSL
Lance Peterson, CDM Smith
Kristine Koch, EPA
David Livermore, Integral
Eron Dodak, Integral
Karen Traeger, LSS
Fred Wolf, LSS
Steve Parkinson, Joyce Ziker Parkinson
Matt Stock, Joyce Ziker Parkinson

EXHIBITS

Exhibit 1. Work Plan: Integral. 2014. Draft sediment sampling work plan, Arkema early action. Prepared for Legacy Site Services LLC, Exton, PA. Integral Consulting Inc., Portland, OR. April 30.

Exhibit 2. June 6 EPA Letter: Sheldrake, S. 2014. Letter to T. Slater, Legacy Site Services LLC, dated June 6, 2014, regarding Submittal of Draft Sediment Sampling Work Plan, Arkema Inc. Portland Facility, U.S. EPA Region 10, Docket No. CERCLA 10-2005-0191. U.S. Environmental Protection Agency Region 10, Seattle, WA.

Exhibit 3. USEPA. 2012. Guidelines for using passive samplers to monitor organic contaminants at Superfund sediment sites. OSWER Directive 9200.1-110FS. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation and Office of Research and Development. December.

Exhibit 4. Gschwend, P.M., J. Appell, and J.K. MacFarlane. 2013. Obtaining measures of freely-dissolved polychlorinated biphenyls (PCBs) in pore water of the Lower Duwamish Waterway (LDW) sediments using passive polyethylene samplers for comparison with calculations based on sediment concentrations and partitioning to total organic carbon and black carbon. Submitted to U.S. Army Corps of Engineers, Seattle District. September 30.

Exhibit 5. Fernandez, L.A., W. Lao, K.A. Maruya, and R.M Burgess. 2014. Calculating the diffusive flux of persistent organic pollutants between sediments and the water column on the Palos Verdes Shelf Superfund site using polymeric passive samplers. *Environ. Sci. Technol.* 48(7):3925–3934.

Exhibit 6. Greenberg, M.S., P.M. Chapman, I.J. Allan, K.A. Anderson, S.E. Apitz, C. Beegan, T.S. Bridges, S.S. Brown, J.G. Cargill IV, M.C. McCulloch, C.A. Menzie, J.P. Shine, and T.F. Parkerton. 2014. Passive sampling methods for contaminated sediments: risk assessment and management. *Integrated Environmental Assessment and Management* 10(2):224–236.

Exhibit 7. SEE, DOF, and GSI. 2014. Porewater sampling and analysis plan, river mile 11 east. Prepared for RM11E Group. SEE, LLC; Dalton, Olmsted & Fuglevand, Inc.; and GSI Water Solutions, Inc.

Exhibit 8. Integral. 2012. Draft engineer evaluation and cost analysis, Arkema early action. Prepared for Legacy Site Services LLC, Exton, PA. Integral Consulting Inc., Portland, OR. July 26.